

ANALYTICAL SUMMARY REPORT

April 07, 2011

PBS and J
1120 Cedar St
Missoula, MT 59802-3911

Workorder No.: B11032392
Project Name: Poplar PWS

Energy Laboratories Inc Billings MT received the following 7 samples for PBS and J on 3/30/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B11032392-001	4298-COP1-UNT	03/29/11 12:00	03/30/11	Aqueous	Metals by ICP/ICPMS, Drinking Water Anions by Ion Chromatography Metals Preparation by EPA 200.2 Solids, Total Dissolved 524-Purgeable Organics, SDWA
B11032392-002	4298-COP1-TRE	03/29/11 12:30	03/30/11	Aqueous	Same As Above
B11032392-003	4298-COP2-UNT	03/29/11 10:25	03/30/11	Aqueous	Same As Above
B11032392-004	4298-COP2-TRE	03/29/11 11:15	03/30/11	Aqueous	Same As Above
B11032392-005	4298-COP4-UNT	03/29/11 9:30	03/30/11	Aqueous	Same As Above
B11032392-006	4298-Dist	03/29/11 13:00	03/30/11	Aqueous	Same As Above
B11032392-007	Trip Blank Lot #032111, B-TS 0253	03/29/11 9:30	03/30/11	Trip Blank	524-Purgeable Organics, SDWA

This report was prepared by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



CLIENT: PBS and J
Project: Poplar PWS
Sample Delivery Group: B11032392

Report Date: 04/07/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-H were subcontracted to Energy Laboratories, 3161 East Lyndale Ave, Helena, MT, EPA Number MT00945.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-001
Client Sample ID 4298-COP1-UNT

Report Date: 04/07/11
Collection Date: 03/29/11 12:00
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	931	mg/L		10		A2540 C	03/30/11 17:47 / qed
INORGANICS							
Chloride	90	mg/L		1		E300.0	03/30/11 21:08 / kh
Sulfate	223	mg/L		1		E300.0	03/30/11 21:08 / kh
Bromide	0.9	mg/L		0.5		E300.0	03/30/11 21:08 / kh
Iodide	0.4	mg/L		0.1		E300.0	04/05/11 22:07 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	04/01/11 03:06 / mas
Calcium	36	mg/L		1		E200.7	03/31/11 19:42 / tao
Lithium	ND	mg/L		0.1		E200.7	03/31/11 19:42 / tao
Manganese	0.28	mg/L		0.01		E200.8	04/01/11 03:06 / mas
Sodium	251	mg/L		1		E200.7	03/31/11 19:42 / tao
Strontium	0.4	mg/L		0.1		E200.8	04/01/11 03:06 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 17:15 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 17:15 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 17:15 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 17:15 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 17:15 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 17:15 / jmh
Surr: p-Bromofluorobenzene	99.0	%REC		80-120		E524.2	04/05/11 17:15 / jmh
Surr: 1,2-Dichloroethane-d4	109	%REC		74-127		E524.2	04/05/11 17:15 / jmh
Surr: Toluene-d8	93.0	%REC		80-120		E524.2	04/05/11 17:15 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-002
Client Sample ID 4298-COP1-TRE

Report Date: 04/07/11
Collection Date: 03/29/11 12:30
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	891	mg/L		10		A2540 C	03/30/11 17:48 / qed
INORGANICS							
Chloride	87	mg/L		1		E300.0	03/30/11 21:18 / kh
Sulfate	208	mg/L		1		E300.0	03/30/11 21:18 / kh
Bromide	1.3	mg/L		0.5		E300.0	03/30/11 21:18 / kh
Iodide	ND	mg/L		0.1		E300.0	04/05/11 22:24 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	04/01/11 03:10 / mas
Calcium	37	mg/L		1		E200.7	03/31/11 19:46 / tao
Lithium	ND	mg/L		0.1		E200.7	03/31/11 19:46 / tao
Manganese	ND	mg/L		0.01		E200.8	04/01/11 03:10 / mas
Sodium	242	mg/L		1		E200.7	03/31/11 19:46 / tao
Strontium	0.4	mg/L		0.1		E200.8	04/01/11 03:10 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 17:46 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 17:46 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 17:46 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 17:46 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 17:46 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 17:46 / jmh
Surr: p-Bromofluorobenzene	104	%REC		80-120		E524.2	04/05/11 17:46 / jmh
Surr: 1,2-Dichloroethane-d4	86.0	%REC		74-127		E524.2	04/05/11 17:46 / jmh
Surr: Toluene-d8	105	%REC		80-120		E524.2	04/05/11 17:46 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-003
Client Sample ID 4298-COP2-UNT

Report Date: 04/07/11
Collection Date: 03/29/11 10:25
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	1210	mg/L		10		A2540 C	03/30/11 17:49 / qed
INORGANICS							
Chloride	151	mg/L		1		E300.0	03/30/11 21:29 / kh
Sulfate	330	mg/L		1		E300.0	03/30/11 21:29 / kh
Bromide	2.5	mg/L		0.5		E300.0	03/30/11 21:29 / kh
Iodide	0.7	mg/L		0.1		E300.0	04/05/11 23:17 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	04/01/11 03:14 / mas
Calcium	64	mg/L		1		E200.7	03/31/11 19:51 / tao
Lithium	ND	mg/L		0.1		E200.7	03/31/11 19:51 / tao
Manganese	0.56	mg/L		0.01		E200.8	04/01/11 03:14 / mas
Sodium	280	mg/L		1		E200.7	03/31/11 19:51 / tao
Strontium	0.7	mg/L		0.1		E200.8	04/01/11 03:14 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 18:17 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 18:17 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 18:17 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 18:17 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 18:17 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 18:17 / jmh
Surr: p-Bromofluorobenzene	96.0	%REC		80-120		E524.2	04/05/11 18:17 / jmh
Surr: 1,2-Dichloroethane-d4	112	%REC		74-127		E524.2	04/05/11 18:17 / jmh
Surr: Toluene-d8	101	%REC		80-120		E524.2	04/05/11 18:17 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-004
Client Sample ID 4298-COP2-TRE

Report Date: 04/07/11
Collection Date: 03/29/11 11:15
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	1200	mg/L		10		A2540 C	03/30/11 17:50 / qed
INORGANICS							
Chloride	157	mg/L		1		E300.0	03/30/11 22:01 / kh
Sulfate	330	mg/L		1		E300.0	03/30/11 22:01 / kh
Bromide	1.2	mg/L		0.5		E300.0	03/30/11 22:01 / kh
Iodide	ND	mg/L		0.1		E300.0	04/05/11 23:34 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	03/31/11 13:18 / mas
Calcium	66	mg/L		1		E200.7	04/01/11 22:01 / rlh
Lithium	ND	mg/L		0.1		E200.7	04/01/11 22:01 / rlh
Manganese	ND	mg/L		0.01		E200.8	03/31/11 13:18 / mas
Sodium	296	mg/L		1		E200.7	04/01/11 22:01 / rlh
Strontium	0.7	mg/L		0.1		E200.8	03/31/11 13:18 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 18:48 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 18:48 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 18:48 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 18:48 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 18:48 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 18:48 / jmh
Surr: p-Bromofluorobenzene	98.0	%REC		80-120		E524.2	04/05/11 18:48 / jmh
Surr: 1,2-Dichloroethane-d4	116	%REC		74-127		E524.2	04/05/11 18:48 / jmh
Surr: Toluene-d8	104	%REC		80-120		E524.2	04/05/11 18:48 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-005
Client Sample ID 4298-COP4-UNT

Report Date: 04/07/11
Collection Date: 03/29/11 09:30
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	906	mg/L		10		A2540 C	03/30/11 17:52 / qed
INORGANICS							
Chloride	87	mg/L		1		E300.0	03/30/11 22:33 / kh
Sulfate	218	mg/L		1		E300.0	03/30/11 22:33 / kh
Bromide	1.2	mg/L		0.5		E300.0	03/30/11 22:33 / kh
Iodide	0.4	mg/L		0.1		E300.0	04/05/11 23:51 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	04/01/11 03:18 / mas
Calcium	39	mg/L		1		E200.7	03/31/11 19:55 / tao
Lithium	ND	mg/L		0.1		E200.7	03/31/11 19:55 / tao
Manganese	0.31	mg/L		0.01		E200.8	04/01/11 03:18 / mas
Sodium	261	mg/L		1		E200.7	03/31/11 19:55 / tao
Strontium	0.4	mg/L		0.1		E200.8	04/01/11 03:18 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 19:19 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 19:19 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 19:19 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 19:19 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 19:19 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 19:19 / jmh
Surr: p-Bromofluorobenzene	102	%REC		80-120		E524.2	04/05/11 19:19 / jmh
Surr: 1,2-Dichloroethane-d4	116	%REC		74-127		E524.2	04/05/11 19:19 / jmh
Surr: Toluene-d8	103	%REC		80-120		E524.2	04/05/11 19:19 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-006
Client Sample ID 4298-Dist

Report Date: 04/07/11
Collection Date: 03/29/11 13:00
Date Received: 03/30/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Solids, Total Dissolved TDS @ 180 C	895	mg/L		10		A2540 C	03/30/11 17:46 / qed
INORGANICS							
Chloride	92	mg/L		1		E300.0	03/30/11 22:43 / kh
Sulfate	217	mg/L		1		E300.0	03/30/11 22:43 / kh
Bromide	1.1	mg/L		0.5		E300.0	03/30/11 22:43 / kh
Iodide	ND	mg/L		0.1		E300.0	04/06/11 00:09 / eli-h
METALS, TOTAL							
Barium	ND	mg/L		0.1	2	E200.8	04/01/11 03:39 / mas
Calcium	41	mg/L		1		E200.7	03/31/11 19:59 / tao
Lithium	ND	mg/L		0.1		E200.7	03/31/11 19:59 / tao
Manganese	ND	mg/L		0.01		E200.8	04/01/11 03:39 / mas
Sodium	252	mg/L		1		E200.7	03/31/11 19:59 / tao
Strontium	0.4	mg/L		0.1		E200.8	04/01/11 03:39 / mas
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 19:50 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 19:50 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 19:50 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 19:50 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 19:50 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 19:50 / jmh
Surr: p-Bromofluorobenzene	103	%REC		80-120		E524.2	04/05/11 19:50 / jmh
Surr: 1,2-Dichloroethane-d4	115	%REC		74-127		E524.2	04/05/11 19:50 / jmh
Surr: Toluene-d8	98.0	%REC		80-120		E524.2	04/05/11 19:50 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS
Lab ID: B11032392-007
Client Sample ID Trip Blank Lot #032111, B-TS 0253

Report Date: 04/07/11
Collection Date: 03/29/11 09:30
Date Received: 03/30/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Benzene	ND	ug/L		0.50	5	E524.2	04/05/11 20:21 / jmh
Ethylbenzene	ND	ug/L		0.50	700	E524.2	04/05/11 20:21 / jmh
Toluene	ND	ug/L		0.50	1000	E524.2	04/05/11 20:21 / jmh
m+p-Xylenes	ND	ug/L		0.50		E524.2	04/05/11 20:21 / jmh
o-Xylene	ND	ug/L		0.50		E524.2	04/05/11 20:21 / jmh
Xylenes, Total	ND	ug/L		0.50	10000	E524.2	04/05/11 20:21 / jmh
Surr: p-Bromofluorobenzene	106	%REC		80-120		E524.2	04/05/11 20:21 / jmh
Surr: 1,2-Dichloroethane-d4	86.0	%REC		74-127		E524.2	04/05/11 20:21 / jmh
Surr: Toluene-d8	104	%REC		80-120		E524.2	04/05/11 20:21 / jmh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C							Batch: TDS110330A		
Sample ID: LCS1	Laboratory Control Sample					Run: CPA124S_110330B		03/30/11 17:23	
Solids, Total Dissolved TDS @ 180 C	1510	mg/L	10	90	90	110			
Sample ID: B11032302-001A MS	Sample Matrix Spike					Run: CPA124S_110330B		03/30/11 17:27	
Solids, Total Dissolved TDS @ 180 C	1740	mg/L	10	89	90	110			S
Sample ID: B11032392-002A DUP	Sample Duplicate					Run: CPA124S_110330B		03/30/11 17:49	
Solids, Total Dissolved TDS @ 180 C	900	mg/L	10		90	110	1.0	5	
Sample ID: MBLK1	Method Blank					Run: CPA124S_110330B		03/30/11 17:58	
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	9						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.7							Analytical Run: ICP203-B_110331A			
Sample ID: ICV	Continuing Calibration Verification Standard							03/31/11 11:48		
Calcium	25.1	mg/L	1.0	101	95	105				
Lithium	1.27	mg/L	0.10	101	95	105				
Sodium	25.2	mg/L	1.0	101	95	105				
Method: E200.7							Batch: 53007			
Sample ID: MB-53007	Method Blank							Run: ICP203-B_110331A 03/31/11 18:55		
Calcium	ND	mg/L	0.01							
Lithium	ND	mg/L	0.001							
Sodium	ND	mg/L	0.01							
Sample ID: LCS-53007	Laboratory Control Sample							Run: ICP203-B_110331A 03/31/11 18:59		
Calcium	23.8	mg/L	1.0	95	85	115				
Lithium	0.505	mg/L	0.10	101	85	115				
Sodium	24.9	mg/L	1.0	100	85	115				
Sample ID: B11032373-001AMS3	Sample Matrix Spike							Run: ICP203-B_110331A 03/31/11 19:33		
Calcium	388	mg/L	1.0		70	130			A	
Lithium	0.505	mg/L	0.10	98	70	130				
Sodium	31.4	mg/L	1.0	97	70	130				
Sample ID: B11032373-001AMSD3	Sample Matrix Spike Duplicate							Run: ICP203-B_110331A 03/31/11 19:38		
Calcium	400	mg/L	1.0		70	130	3.1	20	A	
Lithium	0.513	mg/L	0.10	99	70	130	1.4	20		
Sodium	32.0	mg/L	1.0	99	70	130	1.8	20		

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Analytical Run: ICP203-B_110401A		
Sample ID: ICV	Continuing Calibration Verification Standard							04/01/11 12:00	
Calcium	25.0	mg/L	1.0	100	95	105			
Lithium	1.28	mg/L	0.10	103	95	105			
Sodium	25.3	mg/L	1.0	101	95	105			
Method: E200.7							Batch: R163483		
Sample ID: MB-6500DIS110401A	Method Blank				Run: ICP203-B_110401A		04/01/11 12:27		
Calcium	ND	mg/L	0.01						
Lithium	ND	mg/L	0.001						
Sodium	ND	mg/L	0.01						
Sample ID: LFB-6500DIS110401A	Laboratory Fortified Blank				Run: ICP203-B_110401A		04/01/11 12:31		
Calcium	49.0	mg/L	1.0	98	85	115			
Lithium	1.02	mg/L	0.10	102	85	115			
Sodium	49.5	mg/L	1.0	99	85	115			
Sample ID: B11032368-001BMS2	Sample Matrix Spike				Run: ICP203-B_110401A		04/01/11 21:48		
Calcium	179	mg/L	1.0	73	70	130			
Lithium	0.913	mg/L	0.10	89	70	130			
Sodium	48.1	mg/L	1.0	89	70	130			
Sample ID: B11032368-001BMSD2	Sample Matrix Spike Duplicate				Run: ICP203-B_110401A		04/01/11 21:52		
Calcium	183	mg/L	1.0	82	70	130	2.5	20	
Lithium	0.978	mg/L	0.10	95	70	130	6.9	20	
Sodium	50.7	mg/L	1.0	95	70	130	5.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.8							Analytical Run: ICPMS202-B_110331A			
Sample ID: QCS - 101221A, 101222A Initial Calibration Verification Standard 03/31/11 11:14										
Barium	0.0502	mg/L	0.10	100	90	110				
Manganese	0.249	mg/L	0.010	100	90	110				
Strontium	0.0486	mg/L	0.10	97	90	110				
Method: E200.8							Batch: 53007			
Sample ID: MB-53007 Method Blank Run: ICPMS202-B_110331A 04/01/11 02:45										
Barium	3E-05	mg/L	3E-05							
Manganese	0.0003	mg/L	2E-05							
Strontium	4E-05	mg/L	2E-05							
Sample ID: LCS-53007 Laboratory Control Sample Run: ICPMS202-B_110331A 04/01/11 03:43										
Barium	0.477	mg/L	0.10	95	85	115				
Manganese	2.23	mg/L	0.010	89	85	115				
Strontium	0.447	mg/L	0.10	89	85	115				
Sample ID: B11032373-001AMS3 Sample Matrix Spike Run: ICPMS202-B_110331A 04/01/11 03:46										
Barium	0.633	mg/L	0.10	99	70	130				
Manganese	2.37	mg/L	0.010	91	70	130				
Strontium	1.20	mg/L	0.10	89	70	130				
Sample ID: B11032373-001AMSD3 Sample Matrix Spike Duplicate Run: ICPMS202-B_110331A 04/01/11 03:50										
Barium	0.623	mg/L	0.10	97	70	130	1.6	20		
Manganese	2.36	mg/L	0.010	90	70	130	0.5	20		
Strontium	1.20	mg/L	0.10	90	70	130	0.5	20		
Method: E200.8							Batch: R163444			
Sample ID: LRB Method Blank Run: ICPMS202-B_110331A 03/31/11 11:47										
Barium	ND	mg/L	4E-05							
Manganese	ND	mg/L	8E-06							
Strontium	ND	mg/L	1.0E-05							
Sample ID: LFB Laboratory Fortified Blank Run: ICPMS202-B_110331A 03/31/11 11:55										
Barium	0.0495	mg/L	0.10	99	85	115				
Manganese	0.0527	mg/L	0.010	105	85	115				
Strontium	0.0504	mg/L	0.10	101	85	115				
Sample ID: B11032256-004AMS Sample Matrix Spike Run: ICPMS202-B_110331A 03/31/11 14:09										
Barium	0.0508	mg/L	0.010	101	70	130				
Manganese	0.0530	mg/L	0.0010	106	70	130				
Strontium	0.0506	mg/L	0.10	101	70	130				
Sample ID: B11032256-004AMSD Sample Matrix Spike Duplicate Run: ICPMS202-B_110331A 03/31/11 14:13										
Barium	0.0513	mg/L	0.010	102	70	130	1.0	20		
Manganese	0.0534	mg/L	0.0010	107	70	130	0.7	20		

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R163444
Sample ID: B11032256-004AMSD	Sample Matrix Spike Duplicate								Run: ICPMS202-B_110331A
Strontium	0.0512	mg/L	0.10	102	70	130		20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0							Analytical Run: IC202-B_110330A		
Sample ID: ICV033011-11	Initial Calibration Verification Standard								03/30/11 11:33
Chloride	25.1	mg/L	1.0	100	90	110			
Sulfate	107	mg/L	1.0	107	90	110			
Bromide	11.7	mg/L	0.50	93	90	110			
Method: E300.0							Batch: R163368		
Sample ID: ICB033011-12	Method Blank								03/30/11 11:44
Chloride	0.1	mg/L	0.02						
Sulfate	ND	mg/L	0.2						
Bromide	ND	mg/L	0.05						
Sample ID: LFB033011-13	Laboratory Fortified Blank								03/30/11 11:55
Chloride	24.5	mg/L	1.0	97	90	110			
Sulfate	103	mg/L	1.1	103	90	110			
Bromide	49.6	mg/L	0.54	99	90	110			
Sample ID: B11032392-004AMS	Sample Matrix Spike								03/30/11 22:11
Chloride	183	mg/L	1.0		90	110			A
Sulfate	437	mg/L	1.1	107	90	110			
Bromide	54.3	mg/L	0.54	106	90	110			
Sample ID: B11032392-004AMSD	Sample Matrix Spike Duplicate								03/30/11 22:22
Chloride	183	mg/L	1.0		90	110	0.1	20	A
Sulfate	437	mg/L	1.1	107	90	110	0.2	20	
Bromide	54.7	mg/L	0.54	107	90	110	0.8	20	
Sample ID: B11032188-001APDS	Sample Matrix Spike								03/30/11 23:15
Chloride	28.2	mg/L	1.0	103	90	110			
Sulfate	139	mg/L	1.1	111	90	110			S
Bromide	58.2	mg/L	0.54	116	90	110			S
Sample ID: B11032188-001APDSD	Sample Matrix Spike Duplicate								03/30/11 23:26
Chloride	28.7	mg/L	1.0	105	90	110	1.5	20	
Sulfate	143	mg/L	1.1	114	90	110	2.5	20	S
Bromide	58.2	mg/L	0.54	116	90	110	0.0	20	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0							Analytical Run: SUB-H70012		
Sample ID: ICB040511-12	Initial Calibration Verification Standard								04/05/11 20:40
Iodide	10.1	mg/L	0.10	101	90	110			
Method: E300.0							Batch: H_R70012		
Sample ID: B11032392-002B	Sample Matrix Spike Duplicate								04/05/11 22:59
Iodide	11.0	mg/L	0.12	109	90	110	3.5	20	
Sample ID: B11032392-002B	Sample Matrix Spike								04/05/11 22:42
Iodide	10.6	mg/L	0.12	105	90	110			
Sample ID: LFB040511-14	Laboratory Fortified Blank								04/05/11 21:15
Iodide	10.8	mg/L	0.12	108	90	110			
Sample ID: ICB040511-13	Method Blank								04/05/11 20:57
Iodide	ND	mg/L	0.01						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: PBS and J
Project: Poplar PWS

Report Date: 04/07/11
Work Order: B11032392

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
---------	--------	-------	----	------	-----------	------------	-----	----------	------

Method: E524.2

Analytical Run: R163698

Sample ID: ccv040511

Continuing Calibration Verification Standard

04/05/11 11:57

Benzene	5.48	ug/L	0.50	110	70	130			
Ethylbenzene	5.20	ug/L	0.50	104	70	130			
Toluene	5.44	ug/L	0.50	109	70	130			
m+p-Xylenes	10.7	ug/L	0.50	107	70	130			
o-Xylene	5.36	ug/L	0.50	107	70	130			
Xylenes, Total	16.0	ug/L	0.50		0	0			
Surr: p-Bromofluorobenzene			0.50	88	80	120			
Surr: 1,2-Dichloroethane-d4			0.50	112	74	127			
Surr: Toluene-d8			0.50	99	80	120			

Method: E524.2

Batch: R163698

Sample ID: lcs040511

Laboratory Control Sample

Run: VOASATURN_110405A

04/05/11 12:35

Benzene	4.96	ug/L	0.50	99	70	130			
Ethylbenzene	5.28	ug/L	0.50	106	70	130			
Toluene	4.88	ug/L	0.50	98	70	130			
m+p-Xylenes	10.2	ug/L	0.50	102	70	130			
o-Xylene	4.96	ug/L	0.50	99	70	130			
Surr: p-Bromofluorobenzene			0.50	87	80	120			
Surr: 1,2-Dichloroethane-d4			0.50	94	74	127			
Surr: Toluene-d8			0.50	96	80	120			

Sample ID: blk040511

Method Blank

Run: VOASATURN_110405A

04/05/11 13:37

Benzene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Xylenes, Total	ND	ug/L	0.50						
Surr: p-Bromofluorobenzene			0.50	98	80	120			
Surr: 1,2-Dichloroethane-d4			0.50	88	74	127			
Surr: Toluene-d8			0.50	101	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist



B11032392

Login completed by: Darwin C. Miller

Date Received: 3/30/2011

Reviewed by: BL2000\kmcDonald

Received by: srm

Reviewed Date: 3/31/2011

Carrier Return-UPS
name: Ground

- | | | | |
|---|---|-----------------------------|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature: | 1.2°C On Ice | | |
| Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/> |

Contact and Corrective Action Comments:

None



Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: **PBS&J**
 Report Mail Address: **1120 cedar St
Missoula MT 59802**
 Invoice Address: **Same**

Project Name, PWS, Permit, Etc.: **Poplar PWS**
 State: **MT**
 EPA/State Compliance: Yes No
 Sampler: **Seth Sarsky**

Contact Name: **Tyler Etzel** Phone/Fax: **406-721-0354**
 Invoiced Contact & Phone: **Chris matt**
 Purchase Order: **100004298**
 Quote/Bottle Order: **47536**

Shipped by: **Ruby VRS Guld**
 Cooler ID(s):
 Receipt Temp: **1.2 °C**
 On Ice:
 Custody Seal: On Bottle
 Intact:
 Signature Match:

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	ANALYSIS REQUESTED							MATRIX	Standard Turnaround (TAT)	Comments:	Shipped by: Cooler ID(s):	
			Number of Containers	Sample Type: A W S V B O DW	Air Water Bioassay Other	DW - Drinking Water	FSD4.2-RTEX only	TDS, sulfate, chloride, bromide, iodide	Manganese, sodium					Strontium, calcium
1 4298-COP1-wnt	3/29/11	1200	X	SW	X	X	X	X	X	X	X	X	X	metals meth 600.7811032392-001
2 4298-COP1-tre		1230	X		X	X	X	X	X	X	X	X	X	-002
3 4298-COP2-wnt		1025	X		X	X	X	X	X	X	X	X	X	-003
4 4298-COP2-tre		1115	X		X	X	X	X	X	X	X	X	X	-004
5 4298-COP4-wnt		930	X		X	X	X	X	X	X	X	X	X	-005
6 4298-dist		1300	X	X	X	X	X	X	X	X	X	X	X	-006
7														
8 Trip Blank TDS	3/21/11													-007
9														
10														

Special Report/Formats:
 DW
 POTW/WWTP
 State:
 Other:
 EDD/EDT (Electronic Data)
 Format:
 LEVEL IV
 NELAC

Relinquished by (print): **Seth Sarsky** Date/Time: **3-29-11 1400**
 Relinquished by (print): _____ Date/Time: _____
 Signature: _____ Date/Time: _____
 Signature: _____ Date/Time: _____
 Signature: _____ Date/Time: _____
 Signature: _____ Date/Time: _____

Received by Laboratory: **Some Product** Date/Time: **3/30/11 9:15**
 Received by Laboratory: _____ Date/Time: _____
 Received by Laboratory: _____ Date/Time: _____

Sample Disposal: _____ Return to Client: _____
 Lab Disposal: _____

Custody Record MUST be Signed

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.